

**MAIL TO:**

STATE OF UTAH  
DIVISION OF PURCHASING  
3150 STATE OFFICE BUILDING, CAPITOL HILL  
P.O. BOX 141061  
SALT LAKE CITY, UTAH 84114-1061  
TELEPHONE (801) 538-3026  
[www.purchasing.utah.gov](http://www.purchasing.utah.gov)

**Invitation to Bid**Solicitation Number: **FV6044**Due Date: **11/16/05 at 2:00 PM**

Date Sent: October 13, 2005

Goods and services to be purchased: **PROVIDE FIBERGLASS REINFORCED PLASTIC FISH REARING TANKS****Please complete**

Company Name		Federal Tax Identification Number	
Ordering Address	City	State	Zip Code
Remittance Address (if different from ordering address)	City	State	Zip Code
Type <input type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Proprietorship <input type="checkbox"/> Government	Company Contact Person		
Telephone Number (include area code)	Fax Number (include area code)		
Company's Internet Web Address	Email Address		
Discount Terms (for bid purposes, bid discounts less than 30 days will not be considered)	Days Required for Delivery After Receipt of Order (see attached for any required minimums)		
<p>The following documents are included in this solicitation: Solicitation forms, instructions and general provisions, and specifications. <u>Please review all documents carefully before completing.</u></p> <p>The undersigned certifies that the goods or services offered are produced, mined, grown, manufactured, or performed in Utah. Yes _____ No _____. If no, enter where produced, etc. _____</p>			
Offeror's Authorized Representative's Signature		Date	
Type or Print Name		Position or Title	

**STATE OF UTAH  
DIVISION OF PURCHASING  
GENERAL SERVICES**

**Invitation to Bid**

**Solicitation Number: FV6044**

**Due Date: 11/16/05@2:00PM**

**Vendor Name:**

Item#	Qty	Unit	Description	Unit Price	Extension
001	28	EA	<p>PROVIDE 28 FIBERGLASS REINFORCED PLASTIC FISH REARING TANKS WITH SCREENS AND STANDPIPES, CONSTRUCTED TO MEET THE ATTACHED SPECIFICATIONS AND DRAWINGS. TANKS, SCREENS AND STANDPIPES SHALL BE DELIVERED TO THE EAST HATCHERY BUILDING AT THE SPRINGVILLE STATE FISH HATCHERY, 100 NORTH MAIN, SPRINGVILLE, UTAH 84663.</p> <p>PROSPECTIVE CONTRACTORS AND SUBCONTRACTORS WILL TAKE ALL NECESSARY AFFIRMATIVE STEPS TO ASSURE THAT SMALL AND MINORITY FIRMS, WOMEN'S BUSINESS ENTERPRISES, AND LABOR SURPLUS AREA FIRMS ARE USED WHEN POSSIBLE.</p> <p>CONTACT ZAN MURRAY AT 435-713-9514 OR 435-757-5767 IN REGARDS TO QUESTIONS ON SPECIFICATIONS.</p> <p>FOB SPRINGVILLE UTAH 84663. BIDDER IS TO COMPLETE THE FREIGHT SECTION ON THIS BID DETAILING THE FREIGHT COSTS. THE STATE AT IT'S OPTION MAY DECIDE TO DELIVER THE PRODUCT USING IT'S OWN FREIGHT CONTRACTS. ALSO BIDDERS ARE TO INCLUDE WITH THEIR BID, SHOP DRAWINGS PER SECTION 1.3 A &amp; 1.3 B OF THIS BID.</p>	\$	\$

FOR QUESTIONS REGARDING PURCHASING, PLEASE CONTACT FRANK VOLK AT 801-538-3707.

Changes or modifications to this bid:

Any changes or modifications to this solicitation will only be accomplished in written addendum sent from the division of purchasing.

Any other form is not binding. Bidders submitting a bid on any information other than which is contained in this solicitation document, or any addendum thereto, do so at their own risk.

**Ship To: SPRINGVILLE UT 84663**

**FREIGHT CHARGES (if applicable)**

SHIPPING POINT AND ZIP CODE	
<input type="checkbox"/> SHIPPING WEIGHT	
MODE OF TRANSPORTATION (Please check one)	
<input type="checkbox"/> Small package/Ground <input type="checkbox"/> LTL(Less than truck load) <input type="checkbox"/> Truckload <input type="checkbox"/> Air <input type="checkbox"/> Other (Please specify)	
NMFC Class# _____ NMFC Item # _____	
TOTAL PRICE LESS FREIGHT (FOB Origin)	\$
TOTAL PRICE INCLUDING FREIGHT (FOB Destination)	\$

## INVITATION TO BID - INSTRUCTION AND GENERAL PROVISIONS

**1. BID PREPARATION:** (a) All prices and notations must be in ink or typewritten. (b) Price each item separately. Unit price shall be shown and a total price shall be entered for each item bid. Errors may be crossed out and corrections printed in ink or typewritten adjacent and must be initialed in ink by person signing quotation. (c) Unit price will govern, if there is an error in the extension. (d) Delivery time is critical and must be adhered to as specified. (e) Wherever in this document an item is defined by using a trade name of a manufacturer and/or model number, it is intended that the words, "or equivalent" apply. "Or equivalent" means any other brand that is equal in use, quality, economy and performance to the brand listed as determined by the Division of Purchasing & General Services (DIVISION). If the vendor lists a trade name and/or catalog number in the bid, the DIVISION will assume the item meets the specifications unless the bid clearly states it is an alternate, and describes specifically how it differs from the item specified. All bids must include complete manufacturer's descriptive literature if quoting an equivalent product. All products are to be of new, unused condition, unless otherwise requested in this solicitation. (f) By signing the bid the vendor certifies that all of the information provided is accurate, that they are willing and able to furnish the item(s) specified, and that prices quoted are correct. (g) This bid may not be withdrawn for a period of 60 days from bid due date.

**2. SUBMITTING THE BID:** (a) The bid must be signed in ink, sealed in a properly addressed envelope, and delivered to the DIVISION OF PURCHASING (DIVISION), 3150 State Office Building, Capitol Hill, Salt Lake City, UT 84114-1061 by the "Due Date and Time." **The "Bid Number" and "Due Date" must appear on the outside of the envelope.** (b) Bids, modifications, or corrections received after the closing time on the "Due Date" will be considered late and handled in accordance with the Utah Procurement Rules, section R33-3-109. (c) **Your bid will be considered only if it is submitted on the forms provided by the state. Facsimile transmission of bids to DIVISION will not be considered.** (d) All prices quoted must be both F.O.B. Origin per paragraph 1.(c) and F.O.B. Destination. Additional charges including but not limited to delivery, drayage, express, parcel post, packing, cartage, insurance, license fees, permits, costs of bonds, or for any other purpose must be included in the bid for consideration and approval by the DIVISION. Upon award of the contract, the shipping terms will be F.O.B. Destination with all transportation and handling charges paid by the Contractor, unless otherwise specified by the DIVISION.

**3. SOLICITATION AMENDMENTS:** All changes to this solicitation will be made through written addendum only. Bidders are cautioned not to consider verbal modifications.

**4. PROPRIETARY INFORMATION:** Suppliers are required to mark any specific information contained in their bid which is not to be disclosed to the public or used for purposes other than the evaluation of the bid. Each request for nondisclosure must be accompanied by a specific justification explaining why the information is to be protected. Pricing and service elements of any bid will not to be considered proprietary. Bids submitted may to be reviewed and evaluated by any persons at the discretion of the state.

**5. SAMPLES:** Samples of item(s) specified in this bid, when required by DIVISION, must to be furnished free of charge to DIVISION. Any item not destroyed by tests may, upon request made at the time the sample is furnished, to be returned at the bidder's expense.

**6. WARRANTY:** The contractor agrees to warrant and assume responsibility for all products (including hardware, firmware, and/or software products) that it licenses, contracts, or sells to the State of Utah under this contract for a period of one year, unless otherwise specified and mutually agreed upon elsewhere in this contract. The contractor (seller) acknowledges that all warranties granted to the buyer by the Uniform Commercial Code of the State of Utah applies to this contract. Product liability disclaimers and/or warranty disclaimers from the seller are not applicable to this contract unless otherwise specified and mutually agreed upon elsewhere in this contract. In general, the contractor warrants that: (1) the product will do what the salesperson said it would do, (2) the product will live up to all specific claims that the manufacturer makes in their advertisements, (3) the product will be suitable for the ordinary purposes for which such product is used, (4) the product will be suitable for any special purposes that the State has relied on the contractor's skill or judgement to consider when it advised the State about the product, (5) the product has been properly designed and manufactured, and (6) the product is free of significant defects or unusual problems about which the State has not been warned. Remedies available to the State include the following: The contractor will repair or replace (at no charge to the State) the product whose nonconformance is discovered and made known to the contractor in writing. If the repaired and/or replaced product proves to be inadequate, or fails of its essential purpose, the contractor will refund the full amount of any payments that have been made. Nothing in this warranty will be construed to limit any rights or remedies the State of Utah may otherwise have under this contract.

**7. DIVISION APPROVAL:** Purchase orders placed, or contracts written, with the state of Utah, as a result of this bid, will not to be legally binding without the written approval of the director of the DIVISION.

**8. AWARD OF CONTRACT:** (a) the contract will to be awarded with reasonable promptness, by written notice, to the lowest responsible bidder that meets the specifications. Consideration will to be given to the quality of the product(s) to be supplied, conformity to the specifications, the purpose for which required, delivery time required, discount terms and other criteria set forth in this invitation to bid. (b) The bids are opened publicly in the presence of one or more witnesses. the name of each bidder, and the amount of the bid is recorded. Each bid, and the record, is open to public inspection. (c) The DIVISION may accept any item or group of items, or overall low bid. the DIVISION has the right to cancel this invitation to bid at any time prior to the award of contract. (d) The DIVISION can reject any and all bids. And it can waive any informality, or technicality in any bid received, if the DIVISION believes it would serve the best interest of the State. (e) Before, or after, the award of a contract the DIVISION has the right to inspect the bidder's premises and all business records to determine the holder's ability to meet contract requirements. (f) DIVISION does not guarantee to make any purchase under awarded contract(s). Estimated quantities are for bidding purposes only, and not to be interpreted as a guarantee to purchase any amount. (g) Utah has a reciprocal preference law which will to be applied against bidders bidding products or services produced in states which discriminate against Utah products. For details see Section 63-56-404 and 63-56-405, Utah Code Annotated. (h) Bid tabulations and awards are posted under "Vendor Info" at [www.purchasing.utah.gov](http://www.purchasing.utah.gov). (i) Multiple contracts may be awarded if the State determines it would be in its best interest.

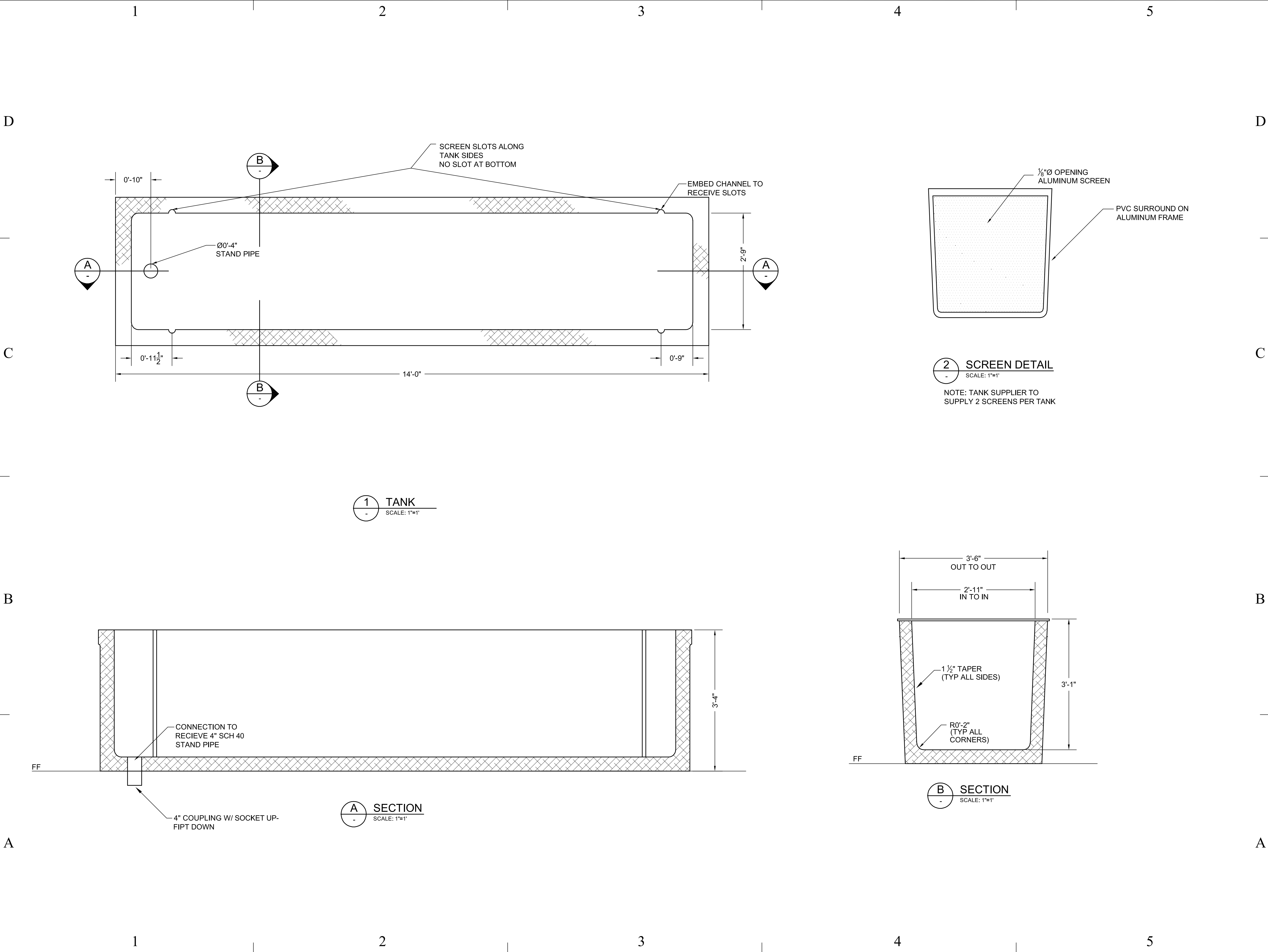
**9. ANTI-DISCRIMINATION ACT:** The bidder agrees to abide by the provisions of the Utah Anti-discrimination Act, Title 34 Chapter 35, U.C.A. 1953, as amended, and Title VI and Title VII of the Civil Rights Act of 1964 (42 USC 2000e), which prohibit discrimination against any employee or applicant for employment, or any applicant or recipient of services, on the basis of race, religion, color, or national origin; and further agrees to abide by Executive Order No. 11246, as amended, which prohibits discrimination on the basis of sex; 45 CFR 90 which prohibits discrimination on the basis of age, and Section 504 of the Rehabilitation Act of 1973 or the Americans with Disabilities Act of 1990, which prohibits discrimination on the basis of disabilities. Also bidder agrees to abide by Utah's Executive Order, dated March 17, 1993, which prohibits sexual harassment in the workplace. Vendor must include this provision in every subcontract or purchase order relating to purchases by the State of Utah to insure that the subcontractors and vendors are bound by this provision.

**10. DEBARMENT:** The CONTRACTOR certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction (contract) by any governmental department or agency. If the CONTRACTOR cannot certify this statement, attach a written explanation for review by the STATE.

**11. ENERGY CONSERVATION AND RECYCLED PRODUCTS:** The contractor is encouraged to offer Energy Star certified products or products that meet FEMP (Federal Energy Management Program) standards for energy consumption. The State of Utah also encourages contractors to offer products that are produced with recycled materials, where appropriate, unless otherwise requested in this solicitation.

**12. GOVERNING LAWS AND REGULATIONS:** All state purchases are subject to the Utah Procurement Code, Title 63 Chapter 56 U.C.A. 1953, as amended, and the Procurement Regulations as adopted by the Utah State Procurement Policy Board. These are available on the Internet at [www.purchasing.utah.gov](http://www.purchasing.utah.gov).

(Revision 5 Oct 2005 - ITB Instructions)



State of Utah

Department of Administrative Services

DFCM

Division of Facilities  
Construction & Management  
4110 State Office Building  
Salt Lake City, Utah 84114  
Phone: (801) 538 - 3018  
Fax: (801) 538 - 3267

Internet: <http://dfcm.utah.gov>

CREATED BY: DFCM

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Kaysville, UT Office  
(801) 547-0393

Orem, UT Office  
(801) 226-0393

Logan, UT Office  
(435) 713-9514

Pocatello, ID Office  
(208) 232-1313

Other Offices in Boise, ID, Twin Falls, ID, Nampa, ID,  
Couer d'Alene, ID, Kennewick, WA, Spokane, WA

BUILDING NAME:

RM#

PROJECT TITLE:

SPRINGVILLE  
HATCHERY  
UPGRADES  
SPRINGVILLE, UTAH

MARK	DATE	DESCRIPTION
ISSUE TYPE: CONSTRUCTION DRAWINGS		
ISSUE DATE: 8/23/05		
DFCM PROJECT NO: 05123520		
CAD PROJECT NO:		
CAD DWG FILE: C-501.DWG		
DRAWN BY:		
CHK'D BY:		
COPYRIGHT: STATE OF UTAH		
SHEET TITLE		
TANK DETAILS		
SHEET NUMBER		
P-501		

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## FRP FISH REARING TANKS

### SECTION 13209

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES:

- A. Fiberglass reinforced plastic tanks for aquaculture rearing purposes. Also screens for separation of fish, outlets and standpipes for maintaining water level in the pipe and to assist cleaning

##### 1.2 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. ANSI/NFPA 70
- B. ASTM D 638 Test Method for Tensile Properties of..Plastics
- C. ASTM D 695 Test Method for Compressive Properties of Rigid Plastics
- D. ASTM D 790 Test Methods for Flexural Properties of Lin reinforced and Reinforced Plastics and Electrical Insulating Materials
- E. ASTM D 883 Definitions of Terms Relating to Plastics
- F. ASTM D 2563 Recommended . Practice for Classifying . Visual Defects in Glass-Reinforced Plastic Laminate Parts
- G. ASTM D 2583 Test 'Method for Indentation Hardness of Rigid Plastics by Means of a. Barcol impresser.
- H. ASTM D 2584 Test Method for Ignition Loss of Cured Reinforced Resins
- I. ASTM D 4097 Standard Specification for Contact-Molded GlassFiber-Reinforced Thermoset Resin Chemical Resistant Tanks

When two or more of the above regulations are applicable, the more stringent requirement shall be met.

##### 1.3 MANUFACTURER SUBMITTALS

- A. **Shop Drawings;** The MANUFACTURER shall furnish shop drawings of all items and accessories with cost proposals. Three copies are required with prior to approval of the tanks. Shop drawings shall include detailed and certified design calculations by a registered engineer as specified above, bill of materials listing all components, resins, catalysts, promoters, ultraviolet light absorbers, agents, reinforcing materials, etc., with Manufacturer's name, trade and identification marks. The laminate sequence used for all tanks must either be attached to or included on drawings used by the fabricator's shop personnel.
- B. **Data Requirements:** The shop drawings and data submitted shall include the following:
  - A. Dimensions.
  - B. Details of structural support members.
  - C. Equipment capacity (gallons).
  - D. Maximum design specific gravity.
  - E. Equipment weight, empty and filled with water.
  - F. Laminate sequence of construction and all materials of construction listed.

- G. Specifications for all supplied bolting, gaskets and accessory items.
- H. Screens

## PART 2 -PRODUCTS

### 2.1 TANK DESIGN

- A. Standards: Construction of tanks shall be in accordance with ASTM standards listed herein and other accepted industry standards for raceway tank design.
- B. Design; Fiber glass tanks shall be constructed using the contact molded method. Tank sidewall thickness shall have a continuous taper not made of stepped thickness courses.
- C. Number - 28 identical tanks shall be provided with the dimensions shown in the drawings and specified herein.
- D. Dimensional Requirements: See attached drawings.

### 2.2 MATERIALS OF CONSTRUCTION

- A. Resin: Resin shall be manufacturer's standard polyester resin, or approved equal. To insure that fresh resin is used, at the completion of the job, lot numbers of the resin used must be shipped with the completed tank. Fillers up to 2 percent by weight of thixotropic agent may be used for viscosity control in the paraffinated top coat on vertical surfaces, provided it will not interfere with visual inspection. The cure system used for the resin shall be in accordance with resin Manufacturer's current recommendations. Proper curing of the resin is the fabricator's responsibility. All products fabricated in this specification shall be poured to at least 90 percent of the minimum Barrel hardness specified by the resin Manufacturer. The requirement applies to both interior and exterior surfaces. No chemical-resistant surface, interior or exterior, shall be acetone sensitive. Where application of polyester film to prevent air inhibition of these surfaces is impractical, a wax containing resin Coating, formulated according to the resin Manufacturer's most recent recommendations, must be used. The minimum thickness of the polyester film shall be 4 mils. The outside surface of the tanks shall have a gel coat with color selection by the STATE OF UTAH ,
- B. Reinforcement Chemical surfacing mat (veil) shall be Type C (chemical) glass, 10 mils thick, with a silane finish and a binder compatible with the lay-up resin. C-Glass shall be OCF M-514-236 or OCF M-514-234: Chopped strand mat shall be Type E (electrical borosilicate) glass, 1-1/2 oz per sq ft, with silane finish and a styrenesoluble reactive binder. Continuous roving used in chopper gun for spray-up shall be Type E glass. Woven roving shall be Type E glass, nominal 24 oz/sq yd, 4 by 5 weave, with silane-type finish. Continuous roving used for filament winding shall be Type E glass with a silane type finish.

### 2.3 CONSTRUCTION.

- A. General: Tanks shall be contact molded on a highly polished monolithic male hold.
- B. Laminate Construction: Laminate construction shall be as follows:
  - 1. Chemical Resistant, Barrier: Tanks shall consist of an inner surface and an interior layer which constitutes the chemical-resistant barrier, and an exterior or structural layer. The inner surface shall be free from cracks and crazing, with a smooth finish. The resin-rich surface shall be between 0.010 and 0.020 inches and reinforced with C-glass. The resin rich inner surface (i.e. exposed to water) shall be a smooth highly polished gel coat, the resin to glass ratio should be approximately 90 percent resin and 10 percent glass. The interior layer shall consist of either (1)-3 layers of 1-1/2 oz / sq ft E-glass chopped strand mat, or (2)-2 layers of 1-1/2 oz / sq ft E-glass chopped strand mat followed by one pass by the spray-up process. In no case shall the combined thickness of the inner surface and the interior layer be less than 0.100 inches. The glass content for the interior layer shall be 20-30 percent,
  - 2. Contact Molded Laminates: The contact molded process includes fabrication by the hand lay-up, contact pressure molding, and spray processes or combinations thereof, according to ASTM D 4907, except as otherwise noted. In addition, Inner surface and interior layer shall be constructed as specified in the preceding paragraph. The exterior layer or body of the laminate shall provide the additional strength necessary to meet the tensile and flexural requirements. Where separate layers such as mat or woven roving are used, all layers shall be lapped a minimum of one inch (two inches for woven roving). Laps shall be staggered as much as possible. If woven roving is used, a layer of chopped strand glass shall be placed as alternate layer. The exterior surface shall be relatively smooth with no exposed fibers or sharp projections. On laminates containing woven roving, cut edges exposed to the chemical environment shall be coated with resin, surfacing mat, and C-glass veil, and all machined flange faces shall be faced with C-glass.
  - 3. Outer Surface: When air-inhibited resins are cured with an air-exposed surface, a wax-containing resin coating, formulated according- to the resin Manufacturer's most recent recommendations, must be used.
  - 4. Tank Exposed Edges: The exposed edges on the top of the vertical sidewall of all tanks in the schedule above shall have a minimum of a 180 degree rounded edge with a minimum radius of 0.5 inches to prevent the Operators from getting skin scrapes or splinters when working around and over the tank side wall.
  - 5. Tank Connections:
    - a. Plain End Connections. Where plain end connections are shown, ends shall be smooth with sufficient length to use a flexible connector and clamp.

6. Screens and Screen Embedments: The manufacturer shall provide the tanks with the screen embedments at intervals shown on the drawings. The embedments shall extend down the tank walls of the tanks with no embedment in the bottom of the tank. The screens once inserted shall sit flush inside the embedment channel. There shall be no gap between the floor of the tank and the screen. The manufacturer shall provide one screens per tank. The screens shall be 1/8" diameter perforated aluminum. When the screens are inserted into the full tank, there shall be no open gap through which fish fry may swim; rather the full wetted perimeter of the screen shall sit inside the embedments.
7. Standpipe Drainage: Said tanks shall be equipped with standpipe arrangements as shown on the drawings. When a standpipe for a tank is inserted into the standpipe coupling, flow shall be sealed. The standpipe coupling shall drain to a 4-inch long (minimum) section of hard piped schedule 80 PVC piping for attachment to flexible tubing or boot.
8. Double Walled and Insulated; Tanks shall be constructed with double walls for structural reinforcement. The space between the double walls shall be insulated.

#### 2.4 WORKMANSHIP

- A. Tank Deflection: The tanks shall be constructed such that there is less than a 1/8" deflection of the tank walls for a full tank.
- B. Visual Defects: ASTM D2563 shall be used for quality control of both filament wound and hand. lay-up construction. Acceptance levels shall be as follows:



<b>Process Surface:</b>	<b>Defects:</b>
Blisters	None
Burned Areas	None
Chips	None
Cracks	None,
Crazing	None
Try Spots	None
Entrapped Air	None at surface. If in laminate 1/16-in dia. max • and 5/sq in max.
Exposed Glass	None
Exposed Cut Edges	None
Foreign Matter	None
Pits	Max 1/16-in dia X 1/32-in deep, max 10/sq ft.
Scratches	None (coated)
Surface Porosity	None
Wrinkles	Max deviation 10 percent of wall thickness.
Sharp Discontinuity	None

**Non-Process Surface:**

Blisters

Burned Areas

Chips

Cracks

Crazing

Dry Spots

Entrapped Air

Exposed Glass

Exposed Cut Edges

Foreign Matter

Pits

Wrinkles

Scratches

Surface Porosity

Sharp Discontinuity

**Defects:**

Max 1/4-in X dia 1/16-in high,

None

Max 1/4-in with max thickness of 20 percent of wall

None

Slight

Max 2 sq in/sq ft

1/8-in dia max; no more than 3 percent of area.

None

None

None if it affects the properties of laminate.

Max 1/8-in dia X 1/16-in deep.

Max deviation 20 percent of wall thickness, but not exceed 1/8-in.

None (coated)

None

None

If the area fails to meet the requirements of entrapped air or voids in less than 40 percent of the total surface, those areas may be repaired and reinspected, If the defective areas exceed 40 percent of the total surface, the entire vessel shall be rejected.

2.5 BOLTS, ANCHOR BOLTS, WASHERS, SUPPORTS, AND HOLD DOWN LUGS

- A. The CONTRACTOR shall provide all bolts, anchor bolts, nuts, washers, and supports as required for all the plastic and fiber glass items specified in this Section, and in accordance with the requirements of the Manufacturers of the plastic and fiber glass items. All bolts, anchor bolts, washers, hold down lugs, and supports required in connection with the plastic or fiber glass items provided under the Section shall be of Type 304 or 316 stainless steel.

END OF SPECIFICATIONS

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